To: Kelly, Myla[MKelly2@mt.gov]
From: Laidlaw, Tina
Sent: Thur 10/6/2016 8:16:06 PM
Subject: RE: MT comments on the ammonia ppt

Bummer. Missed you. Just left you a message. Tag – call when you are free.

From: Kelly, Myla [mailto:MKelly2@mt.gov]
Sent: Thursday, October 06, 2016 1:23 PM
To: Laidlaw, Tina <Laidlaw.Tina@epa.gov>
Subject: RE: MT comments on the ammonia ppt

No problem. I'm at my desk if you have a moment to talk about our next nutrient variance meeting – call me!

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Myla Kelly

Water Quality Standard Supervisor

MT Dept of Environmental Quality

mkelly2@mt.gov

406-444-3639

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From: Laidlaw, Tina [mailto:Laidlaw.Tina@epa.gov]
Sent: Thursday, October 06, 2016 1:10 PM
To: Kelly, Myla
Cc: LaVigne, Paul; Teegarden, Todd; Suplee, Mike
Subject: RE: MT comments on the ammonia ppt

Myla,

Thanks for the great comments. I'll forward them along to TetraTech.

Tina

From: Kelly, Myla [mailto:MKelly2@mt.gov]
Sent: Thursday, October 06, 2016 1:05 PM
To: Laidlaw, Tina <Laidlaw.Tina@epa.gov>
Cc: plavigne@mt.gov; tteegarden@mt.gov; Suplee, Mike <msuplee@mt.gov>
Subject: MT comments on the ammonia ppt

Hi Tina –

I solicited comments on the ammonia ppt slide assumptions from Paul and Todd. I'm sure these will be helpful!

Slide 8: Montana does not appear to have any public wastewater lagoon systems with design flows above the top level of 1-2 MGD. The flows in MT systems are encompassed by the ranges listed in the slides so the categories are as good as any but the number of categories could have been reduced. We have more than 72 lagoon facilities in MT, but we assume that the number 72 in slide 8 reflects the total number of lagoon systems that discharge…is that correct?

Slide 10:Facultative lagoon design criteria - Some of the values listed for MT are for non-discharging systems. I don't think non-discharging criteria are applicable here. So, for MT, min. depth should be 2 ft, detention time should be 180 days.

Slide 11: Aerated lagoon design criteria (MT) – min. number of cells should be 3, min. detention time should be 20 days, max BOD loading (lbs. per acre per day) should be 35.

Slide 14: Effluent TN is typically 20 to 25 mg/l in winter in MT, which will probably be the critical time period for a lagoon to meet NH3 limits. Some systems actually nitrify fairly well during the summer. In summer, a TN of 10-ish (as stated on the slide) might be more appropriate.

Slide 15: Assumptions – I don't think the second bullet is a reasonable assumption because, if a lagoon system is abandoned, those costs are very real and substantial costs to a community. Sludge disposal is very expensive. I would suggest assuming 1 foot of sludge in facultative lagoons and 2 feet for aerated lagoons.

Slide 16: Cost Factors – In MT, all of the funding agencies look closely at WW user rate/ MHI. That seems to be a pretty good normalizer. Second bullet – just use community-level cost factoring.

Overarching critical factor: There is one important factor that most consultants overlook - the availability of qualified operators for anything more than a lagoon system – or even the ability to substantially increase the existing operator time at the facility. So, for flows at or less than level 3 (0.5 MGD), upgrading to mechanical treatment is just not an option, typically. My conversations with others around the country make me think this issue is not restricted to MT.

Myla

From: Laidlaw, Tina [mailto:Laidlaw.Tina@epa.gov]
Sent: Friday, September 23, 2016 5:18 PM
To: Fish, Tonya; barbara.bennett@dphe.state.co.us; blake.beyea@state.co.us; andrew.ross@state.co.us; stephanie.baker@state.co.us; amanda.jensen@state.co.us; patrick.bachmann@state.co.us; melynda.may@state.co.us; Kelly, Myla; Suplee, Mike; Sada, Rosie; Schaar, Melissa; Steinmetz, Amy; Mavencamp, Terri; pwax@nd.gov; mell@nd.gov; patrick.snyder@state.sd.us; egaddis@utah.gov; jostermiller@utah.gov; cbittner@utah.gov; jgardberg@utah.gov; bholcomb@utah.gov; nvonstackelberg@utah.gov; lindsay.patterson@wyo.gov; michael.thomas@wyo.gov; badams@3rivers.net; paulaw@cskt.org; miked@cskt.org; chaunceym@cskt.org; 2horses@nemont.net; joe.walksalong@cheyennenation.com; charten@southernute-nsn.gov; klash@southernute-nsn.gov; aharvey@southernute-nsn.gov; sclow@utemountain.org; clarrick@utemountain.org; montina@3rivers.net; jloring@3rivers.net; cwalden2001@yahoo.com; laurieshafer@nemont.net
Cc: R8 WQS; Johnson, Tom; Rogers, Liz; Jensen, Kris; Sengco, Mario
Subject: Ammonia ppt

Attached is a copy of the ammonia powerpoint presented during this week's States and Tribes

meeting. Please review slides 8, 10 and 11 and respond to me with the following information for your respective State or Tribe:

- Slide 8: Are there any lagoons that would be bigger than the flows listed in this table that should be included in this analysis? Do these flow category seem representative of lagoons in your State or Tribe?

- Slide 10: Do these characteristics look accurate? Are these the range of conditions you would expect to occur?

- Slide 11: Do these characteristics look accurate? Are these the range of conditions you would expect to occur?

- Slide 12: Are you aware of any studies that looked at minimum temperatures for deeper lagoons?

Please email this information to me by October 7th. Feel free to email any other questions or comments.

Tina

Tina Laidlaw

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